Linwood Mining & Minerals Corp.

September 10, 2008

Chad A. Stobbe
Land Quality Bureau
Iowa Department of Natural Resources
Wallace State Office Building
502 East 9th Street
Des Moines, IA 50319-0034

Re: Proposed Amendments to 567 IAC Chapter 108

Dear Mr. Stobbe:

Please consider the following comments and suggestions regarding the Department's proposal to amend chapter 567 IAC 108, "*Beneficial Use Determinations: Solid By-Products As Resources and Alternative Cover Material*".

Linwood Mining & Minerals, Corp. is an Iowa corporation. Its home office is located in Davenport, Iowa. Linwood Mining has operated a quarry and lime production facilities since the mid 1940s. Linwood began underground mining in the 1960s and is currently operating the mine under a Certificate issued to Linwood Mining and Minerals Corp under Iowa Mining License number 92 (Iowa Department of Agriculture and Land Stewardship).

Linwood Mining is subject to mine reclamation regulations under Iowa Code section 208.17 which obligate Linwood Mining to ensure that its mine is stabilized and requires a bond to assure that reclamation of the mine is completed.

Linwood Mining, like all lime producers, generates lime kiln dust. Lime kiln dust (LKD) is a combination of fine particles of lime and limestone collected from the process gases leaving the kilns. The LKD is captured in various air pollution control dust collection systems (e.g., cyclones, electrostatic precipitators, and baghouses). Concentration of lime in LKD is dependent on process conditions but is typically in the 50 – 60% range.

Approximately 2 to 4 million tons of LKD are generated each year in the United States. Lime kiln dust has been used as stabilizing and solidifying agents in the treatment of soft or wet soils for engineering purposes and for environmental remediation, as a soil conditioner for agricultural purposes (in lieu of agricultural lime) and as an acid-neutralizing agent in agricultural and water treatment applications. LKD has also been used as pozzolan initiators, as a pelletized lightweight aggregate material, as a mineral

filler in asphalt pavements, and as a fill material in earth embankments.

LKD has also been beneficially used as fill material in quarries and underground mines. A number of States including Iowa has approved of this use. Ohio, Wisconsin and Virginia have acknowledged the beneficial use of LKD as a fill for on site quarry/mine reclamation. The present DNR proposed modifications to 567 IAC Chapter 108 will remove this beneficial use application in Iowa.

The primary value of LKD is its cementatious properties. Depending on the concentration of hydratable oxides present in the LKD, primarily un-reacted or free lime (CaO) and free magnesia (MgO) respectively, LKD can be highly cementatious at the concentrations of typical LKD. Furthermore, when LKD is left exposed to atmospheric conditions the CaO and MgO ultimately reverts back to CaCO3 (limestone), a non hazardous substance.

The Linwood Mine is a continuous underground mining operation. It is mined utilizing the "room and pillar" method which results in large underground voids in two "floors", 90 and 130 feet below the ground's surface. Linwood Mining has mined underground since the 1960's and currently mines approximately 32 acres a year. The structural integrity of the mine is dependent on the geology and deposition of the limestone formation. During the mining operation there may be areas where the geology (shale, sandstone) may not fully support the material above the mined out area. These areas pose a greater risk for collapse or subsidence. The backfilling of Linwood's underground mine with LKD minimizes the potential for subsidence, a true benefit to the surface environment.

Based upon the information and comments presented Linwood Mining recommends that quarry/mine backfilling with LKD be specified in the new Chapter 108 as a universally approved beneficial use application under 108.4(10) .

Sincerely,

Vito A. Fiore

Vito A. Fiore
Sr.VP of Operations